CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/WNo.12/BTRK/WBM-II/S-T/2013-14 22.02.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of Work	Providing BS Slab drain and metalling in Kerekodi Road, near Nisarga Layout at Abbigere in Ward No. 12 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	EE/DD/WO/219/2013-14 Dated: 27.01.2014
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Water Bound Macadam (Grade-II Metal)
Date of Testing	22.02.2014

Result : Flakiness Index = **11.38%**

Elongation Index = **13.49%**

Result : Combined Flakiness & Elongation index 24.87%

Comments:

→ Maximum allowable Flakiness and Elongation Index for Water Bound Macadam is 30%

Note:

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→ The results indicated above are based on the tests carried out on the samples received in the laboratory

→ Any Query regarding the report must be reported within 30 days from the date of testing

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Job No.: CTCE/BBMP/WNo.12/BTRK/WBM-III/2013-14 Date: 25.02.2014

REPORT

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of the Work	:	Providing BS Slab drain and metalling in Kerekodi Road, near Nisarga Layout at Abbigere in Ward No. 12 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	EE/DD/WO/219/2013-14 Dated: 27.01.2014
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	23.02.2014
Date of Testing	:	25.02.2014

1) SEIVE ANALYSIS:

IS Sieve designation Size,mm	Percentage by Weight Passing for Graded Aggregate	Percentage by Weight Passing as per MORTH table 400-7
63mm	100.00	100.00
53mm	98.30	95-100
45mm	71.25	65-90
22.4mm	5.70	0-10
11.2mm	1.45	0-5

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Job No.: CTCE/BBMP/WNo.12/BTRK/WBM-III/2013-14 Date: 25.02.2014

REPORT

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of the Work	:	Providing BS Slab drain and metalling in Kerekodi Road, near Nisarga Layout at Abbigere in Ward No. 12 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	EE/DD/WO/219/2013-14 Dated: 27.01.2014
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	23.02.2014
Date of Testing	:	25.02.2014

1) SEIVE ANALYSIS:

IS Sieve designation Size,mm	Percentage by Weight Passing for Graded Aggregate	Percentage by Weight Passing as per MORTH table 400-7
63mm	100.00	100.00
53mm	96.20	95-100
45mm	72.15	65-90
22.4mm	6.50	0-10
11.2mm	2.25	0-5

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Job No.: CTCE/BBMP/WNo.12/BTRK/WBM-III/2013-14 Date: 25.02.2014

REPORT

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of the Work	:	Providing BS Slab drain and metalling in Kerekodi Road, near Nisarga Layout at Abbigere in Ward No. 12 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	EE/DD/WO/219/2013-14 Dated: 27.01.2014
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	23.02.2014
Date of Testing	:	25.02.2014

1) SEIVE ANALYSIS:

IS Sieve design ation Size,mm	Percentage by Weight Passing for Graded Aggregate	Percentage by Weight Passing as per MORTH table 400-7
63mm	100.00	100.00
53mm	97.55	95-100
45mm	69.80	65-90
22.4mm	7.35	0-10
11.2mm	1.20	0-5

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Job No.: CTCE/BBMP/WNo.12/BTRK/WBM/AIV/2013-14 25.02.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of the Work	Providing BS Slab drain and metalling in Kerekodi Road, near Nisarga Layout at Abbigere in Ward No. 12 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	EE/DD/WO/219/2013-14 Dated: 27.01.2014
Source / Location	WBM Mix Plant, Bangalore
Type of Mix	Water Bound Macadam
Date of Testing	25.02.2014

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	384	386	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	86	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	300	
4	Aggregate Impact value = percent fines	21.88	22.28	
	100* (W_2/W_1)%			22.08

Comments:

→ Maximum allowable Aggregate Impact value for Water Bound Macadam is 30%

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